

International Standard ISO 9001 an Artificial Intelligence View

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Abstract: ISO 9001 is recognized as a Quality Management Systems standard, i.e., it is the primary phase of a process of constant enhancement that will provide an organisation with the necessary management tools to improve working practices. Indeed, it provides a framework and a set of principles aimed at ensuring a common sense approach to the management of an organization in order to consistently satisfy customers and other stakeholders. Therefore, and in order to add value to ISO 9001, this work focuses on the development of a decision support system, which will allow companies to be able to meet the needs of customers by fulfilling requirements that reflect either the effectiveness or the non-effectiveness of an organization. The procedures for knowledge representation and reasoning used are based on an extension to the Logic Programming language, allowing the handling of incomplete, contradictory and even forbidden data, information and/or knowledge. The computational framework is centred on Artificial Neural Networks to evaluate customer's satisfaction and the degree of confidence that one has on such a happening.